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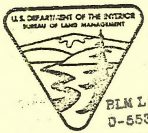

July 8, 1966

LOCO WEED (ASTRAGULAS PUBENTISSINUS) STUDIES

Vernal District, Utah

The following extract was prepared by the Utah State Office from a cooperative study conducted in the Vernal District.

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Early in the fall of 1965, it became apparent that there would be a serious infestation on the winter sheep ranges in the Vernal District. These infestations are cyclic, coming about once per decade, and are the result of a combination of summer temperatures and moisture conditions that are conducive to the germination of seeds from this plant (Astragulas pubentissinus).

As a result of a cooperative effort by the Agricultural Research Service, Utah State University Extension Service, Uintah Wool Growers Association and our district personnel, four study pastures of 15 acres each were established to secure reliable data on the palatability of this species for sheep and its effect on them if eaten in substantial quantities.

The range was rated at seven acres per AUM and the Loco Weed made up from seven to eighteen percent of the available forage in the various pastures. In late November, four ewes and one lamb were placed in each pasture. The experiment concluded on the 19th of February.

One pasture had a trough of cottonseed meal and 2% dicalcium phosphate, another pasture had cottonseed meal only, a third pasture had dicalcium phosphate, and the fourth pasture was a control pasture. The trough containing the supplements was near the water trough in the pastures and the sheep ate the supplement sparingly until after snow fell. Then they did not come in for water and ate very little of the supplements.

On the fifth week some of the sheep began to show symptoms of poison. The first symptom was the action of the sheep in holding its head high and tilted back. Later on they became quite erratic in their movements, walking sideways, showing stiffness in joints and other symptoms commonly associated with Loco poisoning. By the time the pastures were 10% utilized the sheep had apparently eaten enough Loco Weed that they were "hooked." After this stage they apparently actively sought out the Loco Weed to eat to the exclusion of other suitable sheep feed which was present in the pastures. The sheep gained in condition and weight at first, but later on they began to get thinner as the Loco Weed appeared to depress their appetite. The old ewes and lambs were affected more than the middle age sheep. The sheep in the control pasture were less affected by the Loco poisoning than the others but the studies did not point out any reason why this should be so. It was evident, however, that the sheep did not eat much of the supplements in any of the pastures.

The studies did indicate, however, that if you have 5% or more of the total plant composition made up of Loco Weed, it is inadvisable to attempt to use it with sheep.

One rancher who grazed his sheep in the general area rather than remove them, as did most of the other operators, found that the sheep generally were badly locoed by the time he realized what was happening. Many of the lambs were deformed or born dead. He estimates a lambing crop of 25% from this band. Some of the ewes also died even after they were removed from the Loco Weed infested area and put on good feed.

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This information may be of value in pointing out possible economic losses to the stockmen in areas where Loco Weed infestations such as this occur periodically.